



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,674	06/25/2003	William J. Barz	1001-021C2	3813
25215	7590	11/16/2004	EXAMINER	
DOBRUSIN & THENNISCH PC 29 W LAWRENCE ST SUITE 210 PONTIAC, MI 48342			GUTMAN, HILARY L	
			ART UNIT	PAPER NUMBER
			3612	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,674

Applicant(s)

BARZ ET AL.

Examiner

Hilary Gutman

Art Unit

3612



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-34, 39, 40 and 42-50 is/are pending in the application.
- 4a) Of the above claim(s) 25-28 and 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-24, 29, 30, 32-34, 39, 40 and 42-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/7/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the carrier of claims 48-50 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

Art Unit: 3612

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 42, 43, and 44 are objected to under 37 CFR 1.75 as being substantial duplicates of claims 33, 34, and 40, respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 48-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 48-50 all recite the limitation "the carrier" in lines 1-2. There is insufficient antecedent basis for this limitation in these claims. The "carrier" referred to is unclear as to what component of the invention the applicant intends to claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3612

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 22, 29, 32, 39, and 45-46 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 10-53156.

JP '156 discloses a reinforced pillar system (Figure 5) for an automotive vehicle, comprising: an automotive vehicle frame 1, 2 for a pillar of the automotive vehicle, the frame having a plurality of wall portions defining a cavity 6a, 6b therein; a skeleton member 10 disposed within the cavity, the skeleton member having a longitudinal axis, the skeleton member comprising a first upper portion with a plurality of ribs 11 12 and a second lower portion extending away from the first portion, the second portion also including a plurality of ribs 11, 12, both the first portion and the second portion including an outwardly facing surface opposing at least one of the wall portions; and a structural foam material 21 in sealing contact with the skeleton member and at least one of the plurality of wall portions, wherein: at least two of the plurality of ribs 11, 11 of the first portion are in spaced apart opposing relation to each other and the structural foam material sealingly contacts the outwardly facing surface of the first portion and the outwardly facing surface of the second portion when expanded (best seen in Figure 3B).

For claim 32, JP '156 discloses a reinforced pillar system for an automotive vehicle, comprising: an automotive vehicle frame 1, 2 for a pillar (Figure 5) of the automotive vehicle, the frame having a plurality of wall portions defining a cavity 6 therein; a skeleton member 10 disposed within the cavity, the skeleton member 10 having a longitudinal axis, the skeleton

Art Unit: 3612

member comprising a first upper portion with a plurality of ribs 11, 12 and a second lower portion extending away from the first portion, the second portion also including a plurality of ribs 11, 12, both the first portion and the second portion including an outwardly facing surface opposing at least one of the wall portions; and a structural foam material 21 in sealing contact with the skeleton member and at least one of the plurality of wall portions, wherein; at least one of the plurality of ribs 11 of the first portion and at least two of the plurality of ribs 11, 11 of the second portion are in spaced apart opposing relation to each other; and the first portion is contiguous with the second portion and the first portion and the second portion are substantially aligned with each other along the longitudinal axis, and the structural foam material sealingly contacts the outwardly facing surface of the first portion and the outwardly facing surface of the second portion when expanded (Figure 3B).

With regard to claims 29 and 39, at least two ribs 11, 12 in the first portion intersect with each other and the plurality of ribs in the first portion are substantially devoid of the foam.

With regard to claims 45 and 46, the outwardly facing surface of the first portion and the outwardly facing surface of the second portion are coextensive with the longitudinal axis and the structural foam material is coextensive with the outwardly facing surface of the first portion and the outwardly facing surface of the second portion.

Although JP '156 fails to disclose the structural member within a "roof" and pillar system, it should be noted that pillars are well known in the prior art to be connected at a top portion via a roof (as seen in Figure 5). Furthermore, structural members of this type with foam thereon are capable of placement in the roof and pillar area of vehicle as evidenced by Takagi. It

Art Unit: 3612

is apparent that the structural member of JP '156 is "capable" of placement in the roof and pillar area of a vehicle to satisfy the "for a roof and pillar" limitation of the claim.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the structural member of JP '156 within a roof and pillar system (as taught by Takagi) in order to strengthen the roof and pillar area of the vehicle.

8. Claims 22, 32, and 45-46 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 10-71628.

JP '628 discloses a reinforced pillar system for an automotive vehicle, comprising: an automotive vehicle frame 1 for a pillar of the automotive vehicle, the frame having a plurality of wall portions (Figure 4) defining a cavity therein; a skeleton member 10 disposed within the cavity, the skeleton member having a longitudinal axis, the skeleton member comprising a first (upper) portion with a plurality of ribs 12a, 12a and a second (lower) portion extending away from the first portion, the second portion also including a plurality of ribs, both the first portion and the second portion including an outwardly facing surface opposing at least one of the wall portions; and a structural foam material 21 in sealing contact with the skeleton member and at least one of the plurality of wall portions, wherein; at least two of the plurality of ribs of the first portion are in spaced apart opposing relation to each other, and the structural foam material sealingly contacts the outwardly facing surface of the first portion and the outwardly facing surface of the second portion when expanded (Figure 5).

For claim 32, JP '628 discloses a reinforced pillar system for an automotive vehicle, comprising: an automotive vehicle frame 1 for a pillar of the automotive vehicle, the frame

Art Unit: 3612

having a plurality of wall portions (Figure 4) defining a cavity therein; a skeleton member 10 disposed within the cavity, the skeleton member having a longitudinal axis, the skeleton member comprising a first (upper) portion with a plurality of ribs 12a, 12a and a second (lower) portion extending away from the first portion, the second portion also including a plurality of ribs (not numbered, seen in Figure 5); both the first portion and the second portion including an outwardly facing surface opposing at least one of the wall portions; and a structural foam material 21 in sealing contact with the skeleton member and at least one of the plurality of wall portions, wherein; at least one of the plurality of ribs of the first portion and at least two of the plurality of ribs of the second portion are in spaced apart opposing relation to each other; and the first portion is contiguous with the second portion and the first portion and the second portion are substantially aligned with each other along the longitudinal axis, and the structural foam material when expanded sealingly contacts the outwardly facing surface of the first portion and the outwardly facing surface of the second portion (Figure 5).

With regard to claims 45 and 46, the outwardly facing surface of the first portion and the outwardly facing surface of the second portion are coextensive with the longitudinal axis and the structural foam material is coextensive with the outwardly facing surface of the first portion and the outwardly facing surface of the second portion.

Although JP '628 fails to disclose the structural member within a "roof" and pillar system, it should be noted that pillars are well known in the prior art to be connected at a top portion via a roof. It is believed that pillar 1 of JP '628 would act in a similar manner. Furthermore, structural members of this type with foam thereon are capable of placement in the roof and pillar area of vehicle as evidenced by Takagi. It is apparent that the structural member

Art Unit: 3612

of JP '628 is "capable" of placement in the roof and pillar area of a vehicle to satisfy the "for a roof and pillar" limitation of the claim.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the structural member of JP '628 within a roof and pillar system (as taught by Takagi) in order to strengthen the roof and pillar area of the vehicle.

9. Claims 22, 32, and 45-46 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wycech.

Wycech (6,058,673) discloses a reinforced system for an automotive vehicle, comprising: an automotive vehicle frame 22 for a rail of the automotive vehicle, the frame having a plurality of wall portions (Figure 4) defining a cavity 24 therein; a skeleton member 36" disposed within the cavity, the skeleton member having a longitudinal axis, the skeleton member comprising a first portion (or lower portion) with a plurality of ribs (not numbered) and a second portion (or upper portion) extending away from the first portion, the second portion also including a plurality of ribs 38, 38, both the first portion and the second portion including an outwardly facing surface opposing at least one of the wall portions; and a structural foam material 48, 50 in sealing contact with the skeleton member and at least one of the plurality of wall portions, wherein; at least two of the plurality of ribs of the first portion are in spaced apart opposing relation to each other, and the structural foam material sealingly contacts the outwardly facing surface of the first portion and the outwardly facing surface of the second portion.

For claim 32, Wycech discloses a reinforced system for an automotive vehicle, comprising: an automotive vehicle frame 22 for a rail of the automotive vehicle, the frame

Art Unit: 3612

having a plurality of wall portions (Figure 4) defining a cavity 24 therein; a skeleton member disposed within the cavity, the skeleton member having a longitudinal axis, the skeleton member comprising a first portion (lower portion) with a plurality of ribs (not numbered) and a second portion (upper portion) extending away from the first portion, the second portion also including a plurality of opposed ribs 38, 38 (extending from each side of web 42), both the first portion and the second portion including an outwardly facing surface opposing at least one of the wall portions; and a structural foam material 48, 50 in sealing contact with the skeleton member and at least one of the plurality of wall portions, wherein; at least one of the plurality of ribs (generally 40) of the first (lower) portion and at least two of the plurality of ribs (38, 38) of the second portion are in spaced apart opposing relation to each other (wherein each of ribs 38, 38, are vertically spaced from rib 40); and the first portion is contiguous with the second portion and the first portion and the second portion are substantially aligned with each other along the longitudinal axis, and the structural foam material sealingly contacts the outwardly facing surface of the first portion and the outwardly facing surface of the second portion.

With regard to claims 45-46, the outwardly facing surface of the first portion and the outwardly facing surface of the second portion are coextensive with the longitudinal axis and the structural foam material is coextensive with the outwardly facing surface of the first portion and the outwardly facing surface of the second portion.

Although Wycech fails to disclose the structural member within a roof and pillar system, it should be noted structural members of this type with foam thereon are capable of placement in the roof and pillar area of vehicle as evidenced by Takagi. Furthermore, it is apparent that the

Art Unit: 3612

structural member of Wycech is “capable” of placement in the roof and pillar area of a vehicle to satisfy the “for a roof and pillar” limitation of the claim.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the structural member of Wycech within a roof and pillar system (as taught by Takagi) in order to strengthen the roof and pillar area of the vehicle.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 23-24, 30, 33-34, 40, 42-44, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP ‘156, as modified, and as applied to claims 22 and 32 above, and further in view of Takahara.

Art Unit: 3612

For claims 23, 33, and 42, JP '156, as modified, teaches a roof rail adjoining an A-pillar and the skeleton member entirely within the A-pillar (Figure 5).

JP '156, as modified, lacks the first portion of the skeleton member being located in the roof rail and the second portion of the skeleton member extending into the A-pillar.

Takahara teaches an impact energy absorbing structure for use in a roof and pillar system (seen in Figure 19). The energy absorbing structure spans the area of a roof rail and an A-pillar and extends from the roof rail through to the A-pillar. In addition, the energy absorbing structure in one form (Figure 9) can apparently include first and second portions with ribs 82 and 84.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the first portion of the skeleton member of JP '156, as modified, within the roof rail (whereby the second portion of the skeleton member extends into the A-pillar) as taught by Takahara in order to provide additional reinforcement and strengthening support for this area of the vehicle.

With regard to claims 24, 34, and 43, the first portion has a first cross-sectional area taken generally perpendicular to the axis that is less than about 50 percent of second cross-sectional area of the second portion taken generally perpendicular to the axis, such as through ribs 12.

With regard to claims 30, 40, and 44, the skeleton member and the structural foam cooperatively seal the cavity to block passage (Figure 7B) of materials through the cavity.

With regard to claim 47, the outwardly facing surface of the first portion and the outwardly facing surface of the second portion are coextensive with the longitudinal axis and the

Art Unit: 3612

structural foam material is coextensive with the outwardly facing surface of the first portion and the outwardly facing surface of the second portion.

13. Claims 48-49, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '156, as modified, and as applied to claims 22 and 32 above, and further in view of Wycech et al. (6,092,864).

JP '156, as modified, is silent on the material used for the skeleton member.

Wycech et al. teach a skeleton or carrier member being made of a plastic component or plastic material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided skeleton member of JP '156, as modified, out of a plastic material as taught by Wycech et al. in order to provide a lightweight skeleton member.

14. Claim 50, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '156, as twice modified, and as applied to claim 47 above, and further in view of Wycech et al. (6,092,864).

JP '156, as twice modified, is silent on the material used for the skeleton member.

Wycech et al. teach a skeleton or carrier member being made of a plastic component or plastic material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided skeleton member of JP '156, as twice modified, out of a plastic material as taught by Wycech et al. in order to provide a lightweight skeleton member.

Art Unit: 3612

Response to Arguments

15. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hilary Gutman whose telephone number is 703-305-0496.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on 703-308-3102. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3612

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

18. Any response to this final action should be mailed to:

Box AF

Assistant Commissioner for Patents

Washington, D.C. 20231

or faxed to:

(703) 872-9327, (for formal communications; please mark "EXPEDITED
PROCEDURE")

or:

(703) 746-3515, (for informal or draft communications, please clearly label
"PROPOSED" or "DRAFT").



D. GLENN DAYOAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600